Table 55
Statistical profile of postgraduation plans of doctorate recipients, by sex and broad field of study: 2020
(Number and percent)

| Characteristic | All fields | Life sciences ^a | Physical sciences and earth sciences | Mathematics and computer sciences | Psychology and social sciences | Engineering | Education | Humanities and arts | Other ^b |
|--|---------------|-------------------------------|---|---|--------------------------------------|-------------|-----------|---------------------|--------------------|
| All doctorate recipients (number) ^c | 55,283 | 12,561 | 6,247 | 4,392 | 8,946 | 10,476 | 4,716 | 4,939 | 3,006 |
| Postgraduation status (number) ^d | | | | | | | | | |
| Definite postgraduation study | 13,546 | 4,432 | 2,374 | 906 | 2,450 | 2,332 | 305 | 533 | 214 |
| Definite employment | 21,743 | 3,352 | 1,673 | 2,182 | 3,592 | 4,275 | 2,805 | 2,071 | 1,793 |
| Seeking employment or study | 13,677 | 3,313 | 1,645 | 886 | 1,765 | 2,875 | 1,050 | 1,612 | 531 |
| Other ^e | 1,496 | 597 | 113 | 67 | 188 | 175 | 127 | 166 | 63 |
| Definite postgraduation study (%) ^f | | | | | | | | | |
| Postdoc fellowship or research associateship | 94.1 | 93.2 | 97.9 | 95.7 | 90.0 | 95.7 | 92.5 | 94.7 | 95.3 |
| Other or unknown ^g | 5.9 | 6.8 | 2.1 | 4.3 | 10.0 | 4.3 | 7.5 | 5.3 | 4.7 |
| Definite employment (%) ^h | | | | | | | | | |
| Academe | 41.9 | 39.0 | 17.9 | 29.5 | 53.1 | 14.1 | 55.9 | 70.4 | 73.2 |
| Government | 8.0 | 10.7 | 10.1 | 4.3 | 12.6 | 8.8 | 4.1 | 3.1 | 6.6 |
| Industry or business ⁱ | 37.9 | 39.4 | 67.1 | 61.9 | 20.3 | 72.6 | 7.4 | 7.3 | 13.7 |
| Nonprofit organization | 5.9 | 8.0 | 3.0 | 1.8 | 9.2 | 3.1 | 6.4 | 10.8 | 3.8 |
| Other or unknown ^j | 6.3 | 3.0 | 1.9 | 2.4 | 4.8 | 1.5 | 26.2 | 8.5 | 2.7 |
| Primary activity ^k | | | | | | | | | |
| R&D | 46.5 | 46.2 | 70.8 | 69.5 | 38.1 | 74.3 | 12.8 | 9.7 | 41.0 |
| Teaching | 28.8 | 25.2 | 12.7 | 20.2 | 33.7 | 7.8 | 40.2 | 67.5 | 38.9 |
| Management or administration | 10.1 | 9.1 | 3.7 | 2.0 | 8.5 | 3.6 | 33.0 | 10.6 | 10.9 |
| Professional services | 14.0 | 18.9 | 11.9 | 7.9 | 19.1 | 13.7 | 13.5 | 11.7 | 8.8 |
| Other | 0.6 | 0.6 | 0.9 | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 |
| Secondary activity ^l | | | | | | | | | |
| R&D | 23.3 | | 12.8 | 17.3 | 29.5 | | 25.6 | 34.8 | |
| Teaching | 14.3 | 10.8 | 3.0 | 10.1 | 19.6 | 6.4 | 20.1 | 12.9 | 36.8 |
| Management or administration | 10.3 | 13.9 | 14.1 | 5.7 | 9.7 | 12.1 | 9.4 | 9.1 | 4.8 |
| Professional services | 6.5 | | 5.4 | 5.4 | 7.8 | 6.2 | 7.2 | 6.5 | |
| Other | 0.5 | 0.7 | 0.6 | 0.7 | 0.5 | 0.5 | 0.6 | 0.5 | 0.2 |
| No secondary activity | 45.1 | 41.8 | 64.1 | 60.8 | 32.9 | 62.8 | 37.0 | 36.3 | 19.2 |
| Activity unknown | 5.4 | 6.3 | 5.2 | 4.6 | 5.5 | 4.8 | 5.5 | 5.8 | 5.5 |
| Postgraduation location (%) ^m | | | | | | | | | |
| United States ⁿ | 90.2 | 91.7 | 90.1 | 88.1 | 89.4 | 90.6 | 93.5 | 89.1 | 86.0 |
| New England | 8.6 | 10.9 | 9.9 | 6.9 | 9.1 | 8.0 | 4.5 | 8.1 | 6.9 |
| Middle Atlantic | 12.2 | | 11.3 | 13.6 | 14.1 | 9.1 | 10.8 | 16.4 | |
| East North Central | 10.9 | 10.6 | 9.7 | 9.4 | 10.5 | 10.8 | 14.1 | 11.7 | 11.9 |

Table 55
Statistical profile of postgraduation plans of doctorate recipients, by sex and broad field of study: 2020
(Number and percent)

| Characteristic | All fields | Life sciences ^a | Physical sciences and earth sciences | Mathematics and computer sciences | Psychology and social sciences | Engineering | Education | Humanities and arts | Other ^b |
|--|---------------|-------------------------------|---|---|--------------------------------------|-------------|-----------|---------------------|--------------------|
| West North Central | 4.7 | 5.7 | 3.0 | 2.7 | 5.2 | 3.4 | 6.4 | 5.9 | 5.3 |
| South Atlantic | 15.8 | 17.8 | 14.3 | 12.1 | 17.9 | 12.6 | 19.3 | 14.6 | 17.6 |
| East South Central | 4.0 | 4.1 | 2.6 | 1.8 | 3.2 | 3.2 | 8.4 | 5.6 | 5.1 |
| West South Central | 7.5 | 6.6 | 6.1 | 5.3 | 6.9 | 7.9 | 11.3 | 9.2 | 10.0 |
| Mountain | 6.2 | 5.1 | 8.5 | 4.3 | 5.8 | 7.6 | 7.6 | 4.8 | 5.0 |
| Pacific and insular | 19.7 | 17.9 | 24.3 | 31.0 | 15.9 | 27.5 | 10.8 | 11.9 | 9.9 |
| Not in United States | 9.7 | 8.2 | 9.9 | 11.8 | 10.6 | 9.4 | 6.5 | 10.9 | 14.0 |
| Location unknown | * | * | 0.0 | 0.1 | * | 0.1 | 0.0 | 0.0 | * |
| Male doctorate recipients (number) | 29,886 | 5,553 | 4,177 | 3,297 | 3,588 | 7,882 | 1,456 | 2,516 | 1,417 |
| Postgraduation status (number) ^d | | | | | | | | | |
| Definite postgraduation study | 7,447 | 2,053 | 1,648 | 692 | 841 | 1,756 | 81 | 288 | 88 |
| Definite employment | 11,839 | 1,440 | 1,102 | 1,627 | 1,602 | 3,272 | 892 | 1,034 | 870 |
| Seeking employment or study | 7,300 | 1,376 | 1,055 | 653 | 727 | 2,130 | 296 | 823 | 240 |
| Other ^e | 749 | 305 | 67 | 54 | 65 | 120 | 37 | 79 | 22 |
| Definite postgraduation study (%) ^f | | | | | | | | | |
| Postdoc fellowship or research associateship | 94.5 | 91.4 | 97.9 | 95.5 | 92.0 | 95.9 | 93.8 | 93.8 | 96.6 |
| Other or unknown ^g | 5.5 | 8.6 | 2.1 | 4.5 | 8.0 | 4.1 | 6.2 | 6.3 | 3.4 |
| Definite employment (%) ^h | | | | | | | | | |
| Academe | 36.1 | 36.9 | 16.0 | 27.4 | 52.6 | 13.5 | 58.5 | 65.6 | 73.3 |
| Government | 8.3 | 10.7 | 8.6 | 3.9 | 14.6 | 9.2 | 4.9 | 3.1 | 6.4 |
| Industry or business ⁱ | 46.1 | 43.4 | 71.2 | 64.5 | 20.6 | 72.9 | 7.0 | 9.1 | 14.3 |
| Nonprofit organization | 5.2 | 6.3 | 2.7 | 1.8 | 8.4 | 3.0 | 6.7 | 13.4 | 3.6 |
| Other or unknown ^j | 4.4 | 2.7 | 1.5 | 2.4 | 3.8 | 1.4 | 22.9 | 8.8 | 2.4 |
| Primary activity ^k | | | | | | | | | |
| R&D | 55.1 | 52.1 | 74.8 | 72.0 | 43.7 | 75.8 | 14.1 | 9.0 | 42.4 |
| Teaching | 24.4 | 23.3 | 10.2 | 18.5 | 33.0 | 7.9 | 36.4 | 66.5 | |
| Management or administration | 7.9 | 8.0 | 3.1 | 1.9 | 7.2 | 3.6 | 38.6 | 9.8 | 9.6 |
| Professional services | 12.1 | 15.9 | 11.2 | 7.1 | 15.5 | 12.3 | 10.6 | 14.2 | 8.0 |
| Other | 0.6 | 0.7 | 0.8 | 0.5 | 0.6 | 0.5 | 0.2 | 0.5 | 0.7 |
| Secondary activity | | | | | | | | | |
| R&D | 20.7 | 24.6 | 11.7 | 15.8 | 28.7 | 12.0 | 23.8 | 33.2 | 35.3 |
| Teaching | 13.2 | 11.4 | 3.1 | 10.4 | 20.5 | 5.9 | 22.3 | 14.7 | 37.2 |
| Management or administration | 10.7 | 14.4 | 13.8 | 6.0 | 9.7 | 12.4 | 10.8 | 10.0 | 5.2 |
| Professional services | 6.5 | 7.2 | 5.2 | 5.6 | 8.6 | 6.5 | 7.8 | 6.1 | 3.8 |

Table 55
Statistical profile of postgraduation plans of doctorate recipients, by sex and broad field of study: 2020
(Number and percent)

| Characteristic | All fields | Life sciences ^a | Physical sciences and earth sciences | Mathematics and computer sciences | Psychology and social sciences | Engineering | Education | Humanities and arts | Other ^b |
|--|---------------|-------------------------------|---|---|--------------------------------------|-------------|-----------|---------------------|--------------------|
| Other | 0.5 | 0.7 | 0.4 | 0.5 | 0.5 | 0.4 | 0.6 | 0.5 | 0.2 |
| No secondary activity | 48.5 | 41.7 | 65.9 | 61.8 | 32.1 | 62.8 | 34.8 | 35.5 | 18.2 |
| Activity unknown | 5.5 | 6.5 | 5.8 | 5.2 | 5.2 | 4.9 | 6.2 | 5.2 | 6.7 |
| Postgraduation location (%) ^m | | | | | | | | | |
| United States ⁿ | 88.6 | 90.5 | 89.3 | 87.5 | 85.3 | 89.8 | 91.9 | 87.5 | 82.4 |
| New England | 8.3 | 11.5 | 9.4 | 6.6 | 8.8 | 7.4 | 4.2 | 7.9 | 6.2 |
| Middle Atlantic | 11.6 | 11.3 | 10.9 | 13.5 | 13.4 | 9.2 | 10.7 | 16.0 | 12.1 |
| East North Central | 10.8 | 11.3 | 9.7 | 9.7 | 10.0 | 10.8 | 14.6 | 11.3 | 12.6 |
| West North Central | 4.2 | 6.0 | 2.6 | 2.7 | 4.6 | 3.3 | 6.8 | 6.2 | 5.1 |
| South Atlantic | 14.3 | 16.2 | 12.9 | 11.5 | 17.8 | 12.3 | 19.1 | 14.6 | 15.2 |
| East South Central | 3.7 | 4.1 | 2.6 | 1.9 | 3.4 | 3.3 | 8.1 | 5.8 | 4.9 |
| West South Central | 7.2 | 6.4 | 6.6 | 5.1 | 6.1 | 7.7 | 10.7 | 9.4 | |
| Mountain | 6.3 | 5.4 | 8.4 | 4.2 | 5.4 | 7.7 | 7.4 | 4.0 | 4.9 |
| Pacific and insular | 21.6 | 17.9 | 25.7 | 31.5 | 15.2 | 27.5 | 10.0 | 11.4 | 10.2 |
| Not in United States | 11.4 | 9.5 | 10.7 | 12.4 | 14.7 | 10.1 | 8.1 | 12.5 | 17.5 |
| Location unknown | * | * | 0.0 | 0.1 | * | 0.1 | 0.0 | 0.0 | 0.1 |
| Female doctorate recipients (number) | 25,392 | 7,007 | 2,068 | 1,095 | 5,358 | | 3,259 | 2,423 | |
| Postgraduation status (number) ^d | | | | | | | | | |
| Definite postgraduation study | 6,099 | 2,379 | 726 | 214 | 1,609 | 576 | 224 | 245 | 126 |
| Definite employment | 9,904 | 1,912 | 571 | 555 | 1,990 | 1,003 | 1,913 | 1,037 | 923 |
| Seeking employment or study | 6,377 | 1,937 | 590 | 233 | 1,038 | 745 | 754 | 789 | 291 |
| Other ^e | 747 | 292 | 46 | 13 | 123 | 55 | 90 | 87 | 41 |
| Definite postgraduation study (%) ^f | | | | | | | | | |
| Postdoc fellowship or research associateship | 93.6 | 94.8 | 97.7 | 96.3 | 88.9 | 95.0 | 92.0 | 95.9 | 94.4 |
| Other or unknown ^g | 6.4 | 5.2 | 2.3 | 3.7 | 11.1 | 5.0 | 8.0 | 4.1 | 5.6 |
| Definite employment (%) ^h | | | | | | | | | |
| Academe | 48.7 | 40.5 | 21.5 | 35.7 | 53.5 | 16.1 | 54.7 | 75.1 | 73.1 |
| Government | 7.7 | 10.6 | 13.0 | 5.6 | 10.9 | | 3.7 | 3.1 | 6.7 |
| Industry or business ⁱ | 28.0 | 36.5 | 59.2 | 54.2 | 20.1 | 71.5 | 7.6 | 5.5 | 13.1 |
| Nonprofit organization | 6.9 | 9.3 | 3.7 | 2.0 | 9.8 | 3.3 | 6.3 | 8.1 | 4.1 |
| Other or unknown ^j | 8.7 | 3.2 | 2.6 | 2.5 | 5.7 | 1.6 | 27.7 | 8.2 | 2.9 |
| Primary activity ^k | | | | | | | | | |
| R&D | 36.2 | 41.8 | 63.3 | 62.2 | 33.5 | 69.6 | 12.1 | 10.5 | 39.8 |
| Teaching | 34.0 | | 17.3 | 25.0 | 34.3 | | 41.9 | 68.6 | 38.5 |
| Management or administration | 12.8 | | 4.7 | 2.2 | 9.6 | | 30.4 | 11.3 | |

Table 55
Statistical profile of postgraduation plans of doctorate recipients, by sex and broad field of study: 2020

(Number and percent)

| Characteristic | All fields | Life sciences ^a | Physical sciences and earth sciences | Mathematics and computer sciences | Psychology and social sciences | Engineering | Education | Humanities and arts | Otherb |
|---|---------------|-------------------------------|---|---|--------------------------------------|-------------|-----------|---------------------|--------|
| Professional services | 16.4 | 21.2 | 13.3 | 10.2 | 22.1 | 18.2 | 14.9 | 9.2 | 9.5 |
| Other | 0.6 | 0.5 | 1.3 | 0.4 | 0.5 | 1.0 | 0.6 | 0.4 | 0.2 |
| Secondary activity ^l | | | | | | | | | |
| R&D | 26.4 | 26.4 | 15.0 | 21.7 | 30.2 | 11.8 | 26.5 | 36.4 | 33.3 |
| Teaching | 15.5 | 10.3 | 2.9 | 9.3 | 18.9 | 8.0 | 19.1 | 11.0 | 36.5 |
| Management or administration | 9.8 | 13.5 | 14.6 | 5.0 | 9.6 | 11.3 | 8.8 | 8.2 | 4.4 |
| Professional services | 6.6 | 7.2 | 5.7 | 5.0 | 7.2 | 5.4 | 6.9 | 6.8 | 5.7 |
| Other | 0.6 | 0.7 | 1.1 | 1.3 | 0.5 | 0.7 | 0.6 | 0.4 | 0.1 |
| No secondary activity | 41.1 | 41.9 | 60.8 | 57.8 | 33.6 | 62.7 | 38.1 | 37.1 | 20.0 |
| Activity unknown | 5.2 | 6.1 | 4.0 | 2.7 | 5.6 | 4.6 | 5.2 | 6.5 | 4.3 |
| Postgraduation location (%) ^m | | | | | | | | | |
| United States ⁿ | 92.2 | 92.8 | 92.0 | 89.7 | 92.1 | 93.0 | 94.2 | 90.7 | 89.3 |
| New England | 8.9 | 10.4 | 10.8 | 7.8 | 9.3 | 9.9 | 4.7 | 8.3 | 7.5 |
| Middle Atlantic | 13.1 | 13.3 | 12.0 | 13.9 | 14.6 | 8.6 | 10.9 | 16.9 | 13.9 |
| East North Central | 10.9 | 10.0 | 9.6 | 8.3 | 10.9 | 10.5 | 13.8 | 12.0 | 11.2 |
| West North Central | 5.2 | 5.5 | 4.0 | 2.7 | 5.7 | 3.7 | 6.2 | 5.6 | 5.5 |
| South Atlantic | 17.6 | 19.1 | 17.3 | 14.0 | 17.9 | 13.5 | 19.4 | 14.7 | 19.7 |
| East South Central | 4.3 | 4.1 | 2.5 | 1.7 | 3.1 | 3.0 | 8.5 | 5.5 | 5.2 |
| West South Central | 8.0 | 6.8 | 5.0 | 5.9 | 7.4 | 8.6 | 11.5 | 9.0 | 10.2 |
| Mountain | 6.1 | 4.8 | 8.6 | 4.8 | 6.2 | 7.3 | 7.6 | 5.6 | 5.1 |
| Pacific and insular | 17.5 | 17.9 | 21.3 | 29.4 | 16.4 | 27.4 | 11.1 | 12.5 | 9.5 |
| Not in United States | 7.7 | 7.2 | 8.0 | 10.1 | 7.9 | 6.9 | 5.8 | 9.3 | 10.7 |
| Location unknown | * | * | 0.0 | 0.1 | * | 0.1 | 0.0 | 0.0 | 0.0 |

^{* =} value between 0.00% and 0.05%.

Note(s):

Due to rounding, percentages may not sum to 100.

^a Includes agricultural sciences and natural resources; biological and biomedical sciences; and health sciences.

^b Includes other non-science and engineering fields not shown separately.

^c Includes respondents who did not report sex.

^d Includes only respondents who reported postgraduation status.

^e Includes respondents who indicated that they did not plan to work or study, respondents who indicated some other type of postgraduation plans, and respondents who indicated definite plans for other full-time degree program.

^f Excludes respondents who indicated plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postgraduation plans for study.

⁹ Other includes respondents who indicated definite postgraduation study plans for traineeship, internship or clinical residency, or other study.

h Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

¹ Includes doctorate recipients who indicated self-employment.

^j Other is mainly composed of elementary and secondary schools.

^k Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary work activity.

¹ Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and secondary work activity.

m Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

ⁿ Includes cases with an unknown U.S. region of employment after doctorate; see technical notes for states or territories included in regions.

National Center for Science and Engineering Statistics | NSF 22-300

Source(s):National Center for Science and Engineering Statistics, Survey of Earned Doctorates.